

ANNOTATED CHECKLIST OF THE VASCULAR FLORA
OF THE BIG SANDY CREEK UNIT,
BIG THICKET NATIONAL PRESERVE, TEXAS

Larry E. Brown

*Houston Community College
1300 Holman
Houston, Texas 77004, U.S.A.*

and

*Herbarium, Spring Branch Science Center
8856 Westview Drive
Houston, Texas 77055, U.S.A.*

Paul A. Harcombe,
Warren W. Pruess, I. Sandra Elsik

*Department of Ecology and Evolutionary Biology
Rice University
Houston, Texas 77005, U.S.A.*

Barbara R. MacRoberts and
Michael H. MacRoberts

*Bog Research
740 Columbia*

Shreveport, Louisiana 71104, U.S.A.

and

*Herbarium, Museum of Life Sciences
Louisiana State University in Shreveport
Shreveport, Louisiana 71115, U.S.A.*

Stanley D. Jones

*Herbarium, Botanical Research Center
P.O. Box 6717
Bryan, Texas 77805, U.S.A.*

ABSTRACT

An annotated, vouchered checklist is provided of the vascular plant taxa of the 5,806 hectare Big Sandy Creek Unit, Big Thicket National Preserve, Polk County, southeastern Texas. Documented for the unit are 693 total taxa with 45 of them exotic.

RESUMEN

Se ofrece un listado con anotaciones, y testigos de los taxa de plantas vasculares de las 5,806 hectáreas de Big Sandy Creek Unit, Big Thicket National Preserve, Polk County, Sureste de Texas. Se documentan para la unidad un total de 693 de los que 45 son exóticas.

INTRODUCTION

This is the third installment of an inventory, based upon available voucher specimens, of the vascular flora of the Big Thicket National Preserve, southeastern Texas. In the two previous papers we provided an annotated checklist of the Hickory Creek and the Turkey Creek units (MacRoberts et al. 2002b; Brown et al. 2005.). In this paper we do the same for the Big Sandy Creek Unit.

SITE AND METHODS

The Big Thicket is located mostly within the longleaf pine region of the West Gulf Coastal Plain in southeastern Texas (Parks & Cory 1936; McLeod 1971; Harcombe & Marks 1979; Marks & Harcombe 1981; Harcombe et al. 1993). The Big Thicket National Preserve consists of 12 units scattered over seven Texas

counties. The units range from 222 to 10,100 hectares and total about 34,000 hectares (Peacock 1994). The Big Sandy Creek Unit consists of 5,806 hectares and is located in eastern Polk County (Fig. 1). It is about 14.5 km from north to south and is about 9.7 km at its widest east-west point. In elevation it ranges from about 53 to 94 meters. The Big Sandy Creek Unit was chosen for inclusion in the Big Thicket National Preserve because it is diverse, has a wide range of plant communities, is a stream corridor unit, and has "hilly" topography absent from most of the other units (Ajlvsigi 1979; Watson 1979; Harcombe & Marks 1981). It is dominated by upper slope pine oak forest, mid slope oak pine forest, and lower slope hardwood pine forest. Also present are upland pine forest, floodplain hardwood forest, floodplain hardwood pine forest, baygall, cypress-tupelo swamp, and sandhill pine forest (Harcombe & Marks 1979). It has one pitcher plant bog that is badly degraded, no wetland pine savanna, no prairies, and no xeric sandylands although some of the upper slope pine oak forest and sandhill pine forest approach xeric sandylands conditions. A map showing the distribution of plant community types is in Harcombe and Marks (1979). Fire suppression over the past 30 years has resulted in extensive midstory development and shading out of herbaceous vegetation. Details regarding soils, topography, and climate can be found in Deshotels (1978), Watson (1979), Harcombe and Marks (1979), and Marks and Harcombe (1981).

Like all units of the Big Thicket National Preserve, the Big Sandy Creek Unit had not previously been the subject of a detailed floristic inventory although it is one of the best documented units (Watson 1982).

The MacRoberts collected 446 specimens, representing 348 taxa, during 11 field days beginning 3 April 2003 and ending 2 May 2004. Larry Brown collected 644 specimens, representing 435 taxa, during 12 field days beginning 4 April 2003 and ending 27 September 2005. Stanley Jones collected 252 specimens in 2003. Geraldine Watson collected 255 specimens over several years in the late 1970s and early 1980s. Other collectors gathered about 84 specimens. We searched the Texas A & M University (TAMU) herbarium consortium database for additional specimens but no new taxa were found there.

Since our purpose is to produce a list of documented taxa known to occur on the Big Sandy Creek Unit, a vouchered specimen was considered to be the only evidence acceptable for inclusion in the list. However, two species, *Phlox nivalis* subsp. *texensis* a federally listed species, and *Utricularia inflata* were photographically documented and not collected. In all, about 1,650 herbarium specimens form the data for this report. All specimens have been annotated by Larry Brown including most of Bill Carr's 21 collections at TEX/LL. All 6 of his single taxa records have been examined and annotated.

In most cases, nomenclature follows Jones et al. (1997) and Kartesz and Meacham (1999). Some recent literature sources were followed, especially some

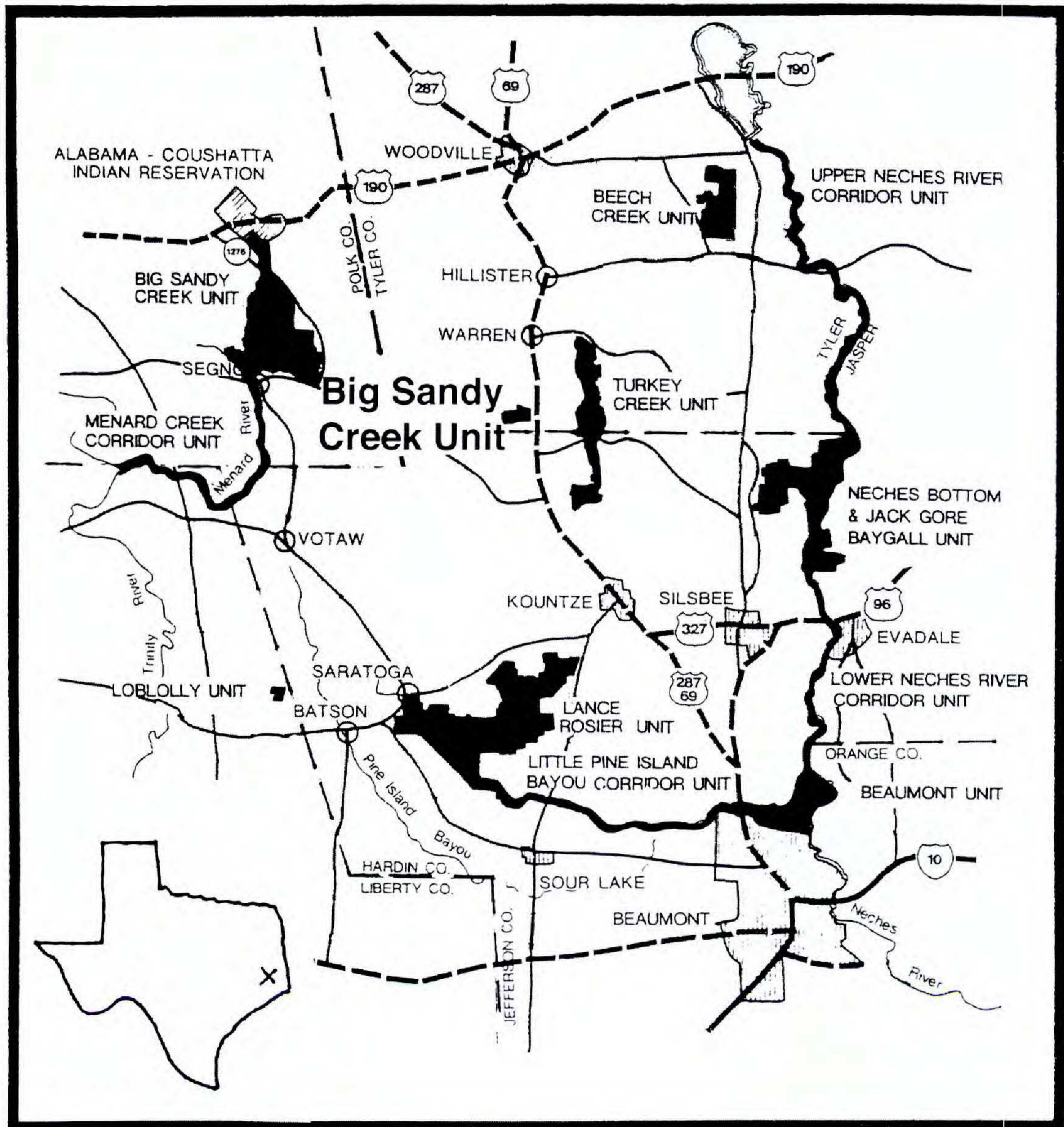


FIG. 1. Location of Big Sandy Creek Unit, Big Thicket National Preserve, Texas.

nomenclature in the *Flora of North America* volumes. In cases of multiple collections, no more than four are listed for each taxon.

RESULTS

Table 1 is an annotated list of the Big Sandy Creek Unit taxa. The following abbreviations are used in Table 1.

CL = C. Liu. His specimen is at Rice University.

CP = Charles Peterson. His two specimens are at SBSC.

DR = David Rosen. His 12 specimens are at SBSC.

GW = Geraldine Watson. Her specimens are at Rice University.

LB = Larry Brown. His specimens are currently at Rice University except for those few that are indicated to be at SBSC.

MM = Barbara and Michael MacRoberts. Their specimens are currently at Rice University except for one at SBSC.

PR = Paul Rolling. His collections are a clear picture of *Utricularia inflata* from the Beaverslide Trail. There is no doubt as to its identification. One specimen is at SBSC and a duplicate is currently at Rice University

SEWP = Sandra Elsik and Warren Pruess. Their specimens are currently at Rice University.

SJ = Stanley Jones. His specimens are currently at Rice University.

WRC = Bill Carr. His 21 specimens are at TEX/LL.

* = exotic

+ = see notes at end of list

Those specimens listed as currently at Rice University are mounted and will be deposited at a yet to be selected major Texas herbarium. Except for the Stanley Jones specimens, they were collected under National Park Service Cooperative Agreement No. CA 14001004.

ACANTHACEAE

Hygrophila lacustris (Schlecht. & Cham.) Nees, SJ 16290; MM6929; LB 28616; GW 2582

Justicia ovata (Walter) Lindau var. *lanceolata* (Chapm.) R.W. Long, SJ 16240; LB 28170

Ruellia humilis Nutt., SJ 16340; LB 28760, 28219; GW 2579

ACERACEAE

Acer barbatum Michx., SJ 16242; LB 27804; GW 2446

Acer rubrum L., SJ 16099; MM 6091; LB 27804, 28147

AGAVACEAE

Manfreda virginica (L.) Salisb. ex Rose, LB 28995, 28775

Yucca louisianensis Trel., LB 27791; SJ 16429

ALISMATACEAE

Echinodorus cordifolius (L.) Griseb., LB 28622

Sagittaria latifolia Willd., GW 2802

AMARANTHACEAE

Froelichia floridana (Nutt.) Moq., MM 6709

ANACARDIACEAE

Rhus aromatica Aiton var. *aromatica*, LB 28669; MM 6598; GW 2730

Rhus copallinum L., SJ 16392; MM 6081

Rhus glabra L., LB 28683

Toxicodendron radicans (L.) Kuntze, LB 27802

Toxicodendron vernix (L.) Kuntze SJ 16188

ANNONACEAE

Asimina parviflora (Michx.) Dunal, SJ 16093; LB 28146, 28188

APIACEAE

Centella erecta (L.f.) Fernald, SJ 17408; LB 28629; MM 6256

Chaerophyllum tainturieri Hook. var. *dasycarpum* S. Watson, MM 6324

Chaerophyllum tainturieri Hook. var. *tainturieri*, LB 27843

Cicuta maculata L., GW 3502

**Cyclospermum leptophyllum* (Pers.) Sprague ex Britton & Wilson, LB 28214

Cynosciadium digitatum DC., SJ 16429; GW 2041

Eryngium prostratum Nutt. ex DC., LB 28226

Hydrocotyle verticillata Thunb., SJ 16236; LB 28657, 28243; GW 2606

Ptilimnium capillaceum (Michx.) Raf., SJ 16362; GW 2588, GW 2596

Sanicula canadensis L., MM 6275, 6571; LB 28144; GW 2482

Sanicula smallii Bickn., SJ 16186

Spermolepis divaricata (Walter) Raf. ex Ser., SJ 16381; MM 6616

Spermolepis echinata (DC.) Heller, MM 61444

Thaspium trifoliatum (L.) A. Gray var. *aureum* Britton, GW 2470

Trepocarpus aethusae Nutt. ex DC., SJ 16254; LB 28651

APOCYNACEAE

Trachelospermum difforme (Walter) A. Gray, LB 28790

AQUIFOLIACEAE

Ilex ambigua (Michx.) Torr., SJ 16233; LB 30452 (SBSC)

Ilex coriacea (Pursh) Chapm., LB 28955, 28148, 28195; MM 6257

Ilex decidua Walter, GW 2460, 2693b, 2694, 2881

Ilex longipes Chapm. ex Trel., SJ 16173; GW 2466, 2882, LB 30460 (SBSC)

Ilex opaca Soland., LB 28595, 28189, 28734; MM 6100

Ilex vomitoria Aiton, SJ 16095; MM 6121

ARACEAE

Arisaema dracontium (L.) Schott, MM 6346; LB 28346

Arisaema triphyllum (L.) Schott, LB 28242, 28621; MM 6258, GW 2533

Peltandra virginica (L.) Schott, SJ 16294; GW 2464a, 2462a, 2641

ARALIACEAE

Aralia spinosa L., SJ 16097; LB 28786; MM 6341

**Hedera helix* L., LB 28143

ARECACEAE

Sabal minor (Jacq.) Pers., SJ 16079; MM 6073; LB 28138

ARISTOLOCHIACEAE

Aristolochia reticulata Jacq., MM 6315; LB 28240

Aristolochia serpentaria L., LB 28972; MM 6276, 6549; GW 2017

Aristolochia tomentosa Sims, GW 2511

ASCLEPIADACEAE

Asclepias amplexicaulis Michx., SJ 16369; LB 28374; MM 6699

Asclepias perennis Walter, LB 30535 (SBSC)

Asclepias tuberosa Woodson subsp. *interior* Woodson, SJ 16302

Asclepias variegata L., MM 6280; LB 28364

Asclepias verticillata L., LB 28779; GW 2016

Asclepias viridis Walter, MM 6310

Matelea cynanchoides (Engelm.) Woodson, MM 6562

Matelea decipiens (Alex.) Woodson, SJ 16182; LB 28662; MM 6738; GW 2570

Matelea gonocarpos (Walter) Shinnars, SJ 16415; LB 28332; GW 2019

ASPLENIACEAE

Asplenium platyneuron (L.) Britton, Sterns & Poggenb., LB 28619, 28382; MM 6131

ASTERACEAE

Ambrosia artemisiifolia L., LB 28672, 28719

Ambrosia psilostachya DC., MM 6886; LB 28996

Baccharis halimifolia L., LB 28950; GW 2735

Berlandiera pumila (Michx.) Nutt. var. *pumila*, MM 6285, LB 27801

Berlandiera pumila (Michx.) Nutt. var. *scabrella* Nesom & B.L. Turner, LB 28431a; MM 6605

Bidens bipinnata L., MM 6933; LB 28723

Bidens discoidea (Torr. & A. Gray) Britton, LB 28615

Bidens frondosa L., MM 6934; GW N08, 2778b

Boltonia diffusa Elliott, MM 6907, 6727

Chrysopsis mariana (L.) Elliott, LB 28943

Chrysopsis pilosa Nutt., LB 28674, 28778; MM 6614, 6611

Cirsium horridulum Michx., MM 6152

Conoclinium coelestinum (L.) DC., MM 6891; LB 28937

Conyza canadensis (L.) Cronquist var. *canadensis*, LB 28761

Conyza canadensis (L.) Cronquist var. *pusilla* (Nutt.) Cronquist, LB 28415; MM 6708; GW 2770

Coreopsis lanceolata L., MM 6145

Coreopsis tinctoria Nutt., MM 6536

Croptilon divaricatum (Nutt.) Raf., LB 29001; MM 6704; WRC 10827

+*Croptilon hookerianum* (Torr. & A. Gray) House, GW 2688

+*Diaperia candida* (Torr. & A. Gray) Bentham, MM 7049

Echinacea pallida (Nutt.) Nutt. var. *sanguinea* (Nutt.) Gandhi & R.D. Thomas, SJ 16402; LB 28223a; MM 6547

Elephantopus carolinianus Raeusch., MM 6946; WRC 10831

Elephantopus nudatus A. Gray, MM 6896

Elephantopus tomentosus L., LB 28598a, 28353; MM 6710, 6560

Erechtites hieraciifolia (L.) Raf. ex DC., LB 28960

Erigeron annuus (L.) Pers., GW 2620

Erigeron strigosus Muhl. ex Willd., LB 28153, MM 6084, 6107; GW 2574

Eupatorium capillifolium (Small) Lam., LB 28935

Eupatorium lancifolium (Torr. & A. Gray) Small, LB 28756

- Eupatorium leucolepis* (DC.) Torr. & A. Gray, MM 6730, 6594
Eupatorium perfoliatum L., LB 28613; MM 6344
Eupatorium rotundifolium L., LB 28427; MM 6729
Eupatorium serotinum Michx., LB 28742, 28228
Euthamia leptcephala (Torr. & A. Gray) Greene ex Porter & Britton, LB 28962, 28746
Facelis retusa (Lam.) Schultz-Bip., LB 27845a; GW 2490
Gaillardia aestivalis (Walter) H. Rock var. *aestivalis*, LB 28680
Gaillardia pulchella Foug. var. *pulchella*, MM 6236
Gamochaeta coarctata (Willd.) Kerguelen, LB 30451a (SBSC)
Gamochaeta pensylvanica (Willd.) Cabrera, GW 2585a
Gamochaeta purpurea (L.) Cabrera, MM 6102; LB 27786, 30537; WRC 17345
Helenium amarum (Raf.) H. Rock var. *amarum*, MM 6545
Helianthus angustifolium L., LB 28947
Helianthus hirsutus Raf., LB 28402; MM 6750, 6524
Helianthus mollis Lam., LB 28676, 20400; MM 6749, 6519
Helianthus simulans E. E. Wats., LB 30877
Heterotheca subaxillaris (Lam.) Britton & Rusby, LB 28932, 28770; WRC 10828
Hieracium gronovii L., LB 28594; MM 6565
Hymenopappus artemisiifolius DC. var. *artemisiifolius*, SJ 16260; LB 28122; MM 6085
 **Hypochaeris microcephala* (Sch. Bip.) Cabrera var. *albiflora* (Kuntze) Cabrera, MM 6265
Iva annua L., GW 2052
Krigia cespitosa (Raf.) Chambers, GW 2493
Krigia virginica (L.) Willd., MM 6111; LB 27782
Lactuca canadensis L., LB 28409, 28378; MM 6518, 6559
Liatris acidota Engelm. & A. Gray, MM 6917
Liatris elegans (Walter) Michx. var. *elegans*, MM 6917, 6747; LB 28984, 28762
Liatris squarrosa (L.) Michx., var. *hirsuta* (Rydb.) Gaiser, LB 28990, 28684
Liatris squarrosa (L.) Michx. var. *squarrosa*, MM 5715, 6746; GW 2092, 2732
Mikania scandens (L.) Willd., LB 27807
Oligoneuron nitidum (Torr. & A. Gray) Small, LB 28985, 28396; MM 6690, 6520
Packera glabella (Poir.) C. Jeffrey, SJ 16237; MM 6342; GW 2526
Packera obovata (Muhl. ex Willd.) W. A. Weber & A. Love, LB 27805
Pityopsis graminifolia (Michx.) Nutt., MM 6898, 6080; LB 28772
Pluchea camphorata (L.) DC., LB 28934; GW 2785
Pluchea foetida (L.) DC., LB 28710
Pseudognaphalium obtusifolium (L.) Hillard & Burt, LB 28934, 28673; MM 6716
Pyrrhopappus carolinianus (Walter) DC., MM 6313; SJ 15348
Ratibida columnifera (Nutt.) Woot. & Standl., MM 6543
Rudbeckia hirta L., MM 6278; LB 28200; SJ 16353
Smallanthus uvedalius (L.) Mack. ex Small, LB 28729a
Solidago canadensis L., LB 28968; GW 2885
Solidago ludoviciana (A. Gray) Small, LB 28749, 28334, 27801a; MM 6294
Solidago odora Aiton var. *odora*, LB 28942, 28660
Solidago petiolaris Aiton., LB 29018
Solidago rugosa Mill. subsp. *asper* (Aiton) Cronquist, LB 28946, 22873
Solidago rugosa Mill. subsp. *rugosa*, LB 28752, GW 2424, 2423A; CL 901179
 **Soliva sessilis* Ruiz & Pavon., GW 2476
 **Sonchus asper* (L.) Hill, LB 29012
 **Sonchus oleraceus* L., LB 28118
Symphotrichum dumosum (L.) Nesom, LB 28936a
Symphotrichum patens (Aiton) Nesom, LB 28981, 27776
Symphotrichum pratense (Raf.) Nesom, MM 6909
Verbesina virginica L., LB 28780
Vernonia missurica Raf., LB 30766 (SBSC)
Vernonia texana (A. Gray) Small, MM 6725, 6527; LB 28731; GW 2731
 **Youngia japonica* (L.) DC., LB 27839
- BERBERIDACEAE**
Podophyllum peltatum L., MM 6151
- BETULACEAE**
Alnus serrulata (Aiton) Willd., SJ 16144; LB 28172
Betula nigra L., SJ 16297; MM 6328; LB 28249a
Carpinus caroliniana Walter, MM 6538, 6148
Ostrya virginiana (Mill.) K. Koch, SJ 16072, 16440; LB 28131; MM 6525
- BIGNONIACEAE**
Bignonia capreolata L., LB 27834a

Campsis radicans (L.) Seem. ex Bureau, SJ 16422
Catalpa speciosa (Warder) Warder ex Engelm., SJ
 16321; LB 27775

BLECHNACEAE

Woodwardia areolata (L.) T. Moore, MM 6338; LB
 27846

BORAGINACEAE

Cynoglossum virginianum L., GW 1846
Lithosperma tuberosum Rugel ex DC., GW 2213
Myosotis macrosperma Engelm., GW 2491

BROMELIACEAE

Tillandsia usneoides (L.) L., MM 6936, 6330, 6755

BUDDLEJACEAE

Polypremum procumbens L., MM 6566

BURMANNIACEAE

Apteria aphylla Nutt., LB 28782; CP 1041; DR 2373
Burmannia capitata (J.F. Gmel.) Mart., MM 6863

CABOMBACEAE

Brasenia schreberi J.F. Gmel., SJ 16291

CACTACEAE

Opuntia humifusa (Raf.) Raf., SJ 16383; MM 6603

CALLITRICHACEAE

Callitriche heterophylla Pursh, SJ 16147; GW 2527

CAMPANULACEAE

Lobelia appendiculata A. DC., MM 6303; GW 2562
Lobelia cardinalis L., LB 28978
Lobelia puberula Michx., MM 6878; GW 2822; LB
 28958, 28606
Triodanis perfoliata (L.) Nieuwl., GW 2475
 **Wahlenbergia marginata* (Thunb.) A. DC., SJ
 16376; MM 6106; LB 27780

CAPRIFOLIACEAE

**Lonicera japonica* Thunb., MM 6263; LB 28156
Lonicera sempervirens L., LB 27815; GW 2469
Sambucus nigra L. subsp. *canadensis* (L.) R. Bolli,
 LB 28641
Viburnum acerifolium L., SJ 16322
Viburnum dentatum L., SJ 16396; MM 6074;
 LB 28593; GW 2465
Viburnum nudum L. var. *nudum*, SJ 16286; LB
 28198
Viburnum rufidulum Raf., MM 6093; GW 2040,
 2703

CARYOPHYLLACEAE

*+*Cerastium pumilum* Curtis, MM 6143 (SBSC)
Loeflingia squarrosa Nutt., MM 7072

+*Minuartia muscorum* (Fassett) Rabeler, SJ 16105
 +*Silene subciliata* B. L. Robins., LB 28599, 28626

CELASTRACEAE

Euonymus americanus L., MM 6071; LB 28163

CHENOPODIACEAE

Dysphania ambrosioides (L.) Mosyakin & Clem-
 ents, LB 28646

CISTACEAE

Helianthemum carolinianum (Walter) Michx., LB
 28235a, 27797; MM 6110
Lechea mucronata Raf., LB 27783
Lechea tenuifolia Michx., SJ 16360; LB 28229; MM
 6609

COMMELINACEAE

Commelina erecta L., MM 6601, LB 28385, 28169;
 SJ 126343
Commelina virginica L., LB 29035; MM 6940
Tradescantia reverchonii Bush, MM 6267

CONVOLVULACEAE

Dichondra carolinensis Michx., MM 6125; LB
 27784 SJ 16355
Ipomoea cordatotriloba Dennst., LB 28333
Ipomoea lacunosa L., LB 28735
Ipomoea pandurata (L.) G. F. W. Mey., LB 28429;
 MM 2753, 6617, 6570
Stylisma pickeringii A. Gray var. *pattersonii*
 (Fernald & B.G. Schub.) Myint, MM 6611

CORNACEAE

Cornus florida L., LB 28154; MM 6105; SJ 16394
Nyssa aquatica L., SJ 16205, 16256; LB 28134,
 30455 (SBSC)
Nyssa biflora Walter, SJ 16317; LB 28322
Nyssa sylvatica Marshall., MM 6429; LB 28759,
 30540 (SBSC); SJ 16087

CUPRESSACEAE

Juniperus virginiana L., MM 6114; LB 28598, 28356;
 SJ 16410
Taxodium distichum (L.) L. C. Rich., SJ 16209,
 16339

CUSCUTACEAE

Cuscuta compacta Juss. ex Choisy, LB 30765
 (SBSC)

CYPERACEAE

Bulbostylis ciliatifolia (Elliott) Fernald var
ciliatifolia, MM 6889
Bulbostylis ciliatifolia (Elliott) Fernald var
coarctata (Elliott) Kral, SJ 16425;

- Carex abscondita* Mack., SJ 16119; LB 30456 (SBSC)
Carex albicans Willd. ex Spreng. subsp. *australis* (Bailey) J.H. Rettig, LB 27835
Carex albolutescens Schwein., LB 30566
Carex atlantica Bailey subsp. *capillacea* (Bailey) Reznicek, MM 6244; LB 28191
Carex basiantha Steud., SJ 16116
Carex blanda Dewey, SJ 16124
Carex caroliniana Schwein., SJ 16115; LB 27820
Carex cephalophora Muhl. ex Willd., SJ 16121
Carex cherokeeensis Schwein., SJ 16123
Carex complanata Torr. & Hook., MM 6279, 6529; WRC 17335
Carex corrugata Fernald, SJ 16124; LB 27840
Carex crebriflora Wieg., SJ 16041; LB 27836
Carex debilis Michx. var. *debilis*, SJ 16117; LB 28181
Carex digitalis Willd. var. *asymetrica* Fernald, SJ 16160
Carex festucacea Schkuhr ex Willd., SJ 16044
Carex floridana Schwein., SJ 16044.
Carex frankii Kunth, SJ 16245
Carex glaucescens Elliott, LB 28597, 28266
Carex intumescens Rudge, LB 27150
Carex joorii Bailey, MM 6697; LB 28959a
Carex leavenworthii Dewey, SJ 16103;
Carex leptalea Wahlenb. subsp. *harperi* (Fernald) W. Stone, SJ 16137; LB 28267, 28201
Carex longii Mack., SJ 16361
Carex louisianica Bailey, WRC 17352; SJ 16212; LB 28610, 28157
Carex lupulina Muhl. ex Willd., SJ 17252; LB 28272, 28209, 30563 (SBSC)
Carex lurida Wahlenb., LB 28305
Carex muehlenbergii Schkuhr ex Willd. var. *enervis* Boott, SJ 16043
Carex oxylepis Torr. & Hook., SJ 16153; MM 6337
Carex planispicata R. F. C. Naczi. SJ 16217, 16122
Carex reniformis Small, SJ 16154 5262
Carex retroflexa Muhl. ex Willd., SJ 16284
Carex striatula Michx., LB 30538 (SBSC)
Carex texensis Bailey, SJ 16104; MM 6130
Carex triangularis Boeck., SJ 16118
Carex tribuloides Wahlenb. var. *sangamonensis* Clokey, SJ 16228, 16270; LB 28245
Cyperus croceus Vahl, MM 6555; LB 28718, 28387
Cyperus echinatus Britton, SJ 16400
Cyperus grayioides Mohlenbr. WRC 17705b
Cyperus haspan L., LB 29015, 28729
Cyperus hystricinus Fernald, MM 6756; DR 2364
Cyperus plukenetii Fernald, LB 28671; MM 6720, 6556; DR 2363
Cyperus pseudovegetus Steud., SJ 16365; MM 6698, 6600
Cyperus retroflexus Buckley, LB 28666; MM 6554; DR 2371
Cyperus retrorsus Chapm., LB 28486, 28358
Cyperus strigosus L., LB 28386, 28358
Cyperus virens Michx., SJ 16337; LB 28155
Eleocharis montevidensis Kunth, SJ 16349
Eleocharis obtusa (Willd.) Schult., SJ 16424
Eleocharis tortilis Schult., SJ 16366
Eleocharis tuberculosa (Michx.) Roemer & J.A. Schultes, MM 6245, 6578; LB 28323; SJ 16363
Fuirena squarrosa Michx., MM 6596, 6628
Kyllinga odorata Vahl, LB 28604; MM 6712
Rhynchospora caduca Elliott, SJ 16357
Rhynchospora corniculata (Lam.) A. Gray, MM 6939; LB 28617
Rhynchospora globularis (Chapm.) Small, var. *globularis*, SJ 16382; LB 28677; MM 6530, 6599
Rhynchospora glomerata (L.) Vahl, MM 6735; LB 28430, 28418, 28624
Rhynchospora gracilentata A. Gray, MM 6887; LB 28413; DR 2375
Rhynchospora harveyi W. Boott, LB 28220; SJ 16397
Rhynchospora inexpansa (Michx.) Vahl, LB 28432, 28324
Rhynchospora mixta Britton, LB 28961, 28270, 28340, 28248
Rhynchospora pusilla Chapm. ex M. A. Curt. MM 6574, 6576
Rhynchospora rariflora Elliott, MM 6627; LB 28412, SJ 16266; DR 2365
Rhynchospora scirpoides (Torr.) A. Gray, DR 2376
Scirpus cyperinus L. Kunth, LB 28745, 27848; MM 6540
Scleria ciliata Michx. var. *ciliata*, SJ 16201, 16126; MM 6292; LB 28237
Scleria oligantha Michx., SJ 16280, 16126; MM 6325
Scleria reticularis Michx., MM 6885
Scleria triglomerata Michx., SJ 16423, 16224; LB 28670, 28177
- CYRILLACEAE**
Cyrilla racemiflora L., LB 28179, 28241; MM 6591; SJ 16368

DENNSTAEDTIACEAE

Pteridium aquilinum (L.) Kuhn, MM 6139; LB 28614

DIOSCOREACEAE

Dioscorea villosa L., LB 27833; SJ 16389

DROSERACEAE

Drosera brevifolia Pursh, MM 6094

Drosera capillaris Poir., MM 6883, 6575; LB 28416; GW 2509

DRYOPTERIDACEAE

Athyrium filix-femina (L.) Roth var. *asplenioides* (Michx.) Farw. SJ 16275; MM 6241

Dryopteris ludoviciana (Kuntze) Small, GW 2600

Onoclea sensibilis L., MM 6345; LB 28246, 27842

Polystichum acrostichoides (Michx.) Schott, SJ 16232; LB 28274, 27808

EBENACEAE

Diospyros virginiana L., MM 6281; LB 28966, 28159

ERICACEAE

Rhododendron canescens (Michx.) Sweet, SJ 16329

Rhododendron viscosum (L.) Torr., SJ 16289; LB 2895, 28279, 27850

Vaccinium arboreum Marshall, SJ 16214; LB 28664, 28145; MM 6291

Vaccinium corymbosum L., LB 28428; 28129; MM 6137; GW 2015

Vaccinium stamineum L., SJ 16066; MM 6320

ERIOCAULACEAE

Eriocaulon texense Koern., MM 6592; SJ 16372

EUPHORBIACEAE

Acalypha gracilens A. Gray, MM 6872, 6757; LB 28953; GW 2768

Acalypha rhomboidea Raf., GW 2603

Chamaesyce cordifolia (Elliott) Small, LB 28675, 28768; MM 6618

Cnidoscolus texanus (Muell.-Arg.) Small, MM 6269; SJ 16428

Croton argyranthemus Michx., MM 6309; LB 28224; GW 2576

Croton capitatus Michx., MM 6718

Croton glandulosus L. var. *septentrionalis* Muell.-Arg. MM 6695, GW 2602; LB 28722, 28370

Croton michauxii G. L. Webster, GW 2687; MM 6619

Euphorbia corollata L., LB 27770; MM 6544; GW 2045

Phyllanthus caroliniensis Walter, LB 28607; GW 2787, 2878

**Phyllanthus urinaria* L., LB 27927; MM 6945

Sebastiania fruticosa (W. Bartram) Fernald, SJ 16152; MM 6327; LB 28187, 27830

Stillingia sylvatica L., SJ 16367; MM 6711

Tragia smallii Shinnars, GW 2577

Tragia urticifolia Michx., MM 6306, 6714, 6548; LB 28379

**Triadica sebifera* (L.) Small, SJ 16446

FABACEAE

**Albizia julibrissin* Durazz., SJ 16445; LB 29006, 27771; MM 6524

Baptisia bracteata Muhl. ex Elliott var. *laevicaulis* (A. Gray ex Canby) D. Isley, SJ 16106

Baptisia bracteata Muhl. ex Elliott var. *leucophaea* (Nutt.) Kartesz & Gandhi, MM 6132

Baptisia nuttalliana Small, MM 6316, 6133

Centrosema virginianum (L.) Benth., LB 28381

Cercis canadensis L. var. *canadensis*, MM 6150; LB 28681; SJ 28381

Chamaecrista fasciculata (Michx.) Greene, MM 6751; LB 28681

Chamaecrista nictitans (L.) Moench, LB 28711, 28658

Clitoria mariana L., LB 28590, 28757, 28339; MM 6553

Crotalaria sagittalis L., SJ 16220; MM 6693, 6551; LB 28327

Dalea phleoides (Torr. & A. Gray) Shinnars, MM 6748

Desmodium ciliare (Muhl. ex Willd.) DC., LB 29032, 28376; GW 2714, 2804

Desmodium glabellum (Michx.) DC., LB 28734, GW 2773 2970

Desmodium laevigatum (Nutt.) DC., LB 29030

Desmodium obtusum DC., LB 28366

Desmodium paniculatum DC., LB 28210; GW 2422

Desmodium rotundifolium DC., LB 28668; GW 2803

Erythrina herbacea L., SJ 16322; MM 6288; LB 28223

Galactia volubilis (L.) Britton, LB 28769; MM 6526, 6552; GW 2578

Gleditsia aquatica Marshall, LB 28725

Indigofera suffruticosa Mill., GW 1742

**Kummerowia striata* Mill., LB 28979, 28925

**Lathyrus hirsutus* L., GW 2011

Lespedeza hirta Elliott, MM 6925; LB 29000

Lespedeza procumbens Michx., LB 28397, 28380, 28231; GW 3440

Lespedeza repens (L.) Barton, LB 28758, 28231a; MM 6702, 6572

Lespedeza stuevei Nutt., LB 28767, 29019; GW 2794

Lespedeza virginica (L.) Britton, LB 28751, 28232; GW 2965

Mimosa hystericina (Small ex Britton & Rose) B. L. Turner, SJ 16258; LB 28216

Rhynchosia difformis (Elliott) DC. LB 28750, 28667, 28423; GW 2413

Rhynchosia latifolia Nutt. ex. Torr. & A. Gray, GW 2565, 2733

Rhynchosia reniformis DC., LB 28406, 28235; MM 6270, 6314

Senna marilandica (L.) Link, LB 28642; GW 2049

Senna obtusifolia (L.) Irwin & Barneby, GW 2715

**Senna occidentalis* (L.) Link, GW 2136

+*Sophora affinis* Torr. & A. Gray, GW 2716

Strophostyles umbellata (Muhl. ex Willd.) Britton, LB 28781, 28754

Stylosanthes biflora (L.) Britton, Sterns, Poggenb., MM 5051, 5454

Tephrosia onobrychoides Nutt., MM 6283; LB 28219a; GW 2463

Tephrosia virginiana (L.) Pers., SJ 16391; LB 28661, 28217 MM 6301

**Trifolium campestre* Schreb., MM 6146; SJ 16354

**Trifolium dubium* Sibthorp, LB 27845b

**Trifolium incarnatum* L., SJ 16062; MM 6323

**Trifolium repens* L., SJ 16065

**Vicia sativa* L., MM 6141

Wisteria frutescens (L.) Poir., SJ 16207; LB 28174, 28171, 28175

FAGACEAE

Castanea pumila (L.) Mill. SJ 16314

Fagus grandifolia Ehrh., MM 6101; SJ 16279; LB 27781

Quercus alba L., LB 28125; MM 6602, 6127; SJ 16075

Quercus falcata Michx., MM 6348, 6523; LB 28600; SJ 16304

Quercus hemisphaerica W. Bartram ex Willd., MM 6532; SJ 16110; LB 28777, 28713

Quercus incana W. Bartram, MM 6274, 6568, 6567; SJ 16189

Quercus laurifolia Michx., LB 27844, 27827a, 30560 (SBSC)

Quercus lyrata Walter, LB 28748

Quercus margaretta Ashe ex Small, MM 6318, 6311

Quercus marilandica Muench., MM 6090; SJ 16109; LB 27778, 28665

Quercus michauxii Nutt., LB 28649; MM 6078, 6745; SJ 16084

Quercus nigra L., MM 6077, 6261; SJ 16098; LB 28183

Quercus pagoda Raf., SJ 16169

Quercus phellos L., LB 28117, 27733; MM 6268; SJ 16215

Quercus stellata Wangenh., SJ 16108; LB 29005

GENTIANACEAE

Sabatia angularis (L.) Pursh, CP 1039

Sabatia campestris Nutt. MM 6534; LB 28239

GERANIACEAE

Geranium carolinianum L., SJ 16068

GROSSULARIACEAE

Itea virginica L., SJ 16068; LB 29013, 28133; MM 6243

HALORAGACEAE

**Myriophyllum aquaticum* (Vell.) Verdc., SJ 16292; GW 3345

Proserpinaca palustris L. var. *crebra* Fernald & Grisc. LB 28741

Proserpinaca palustris L. var. *amblyogona* Fernald, LB 28158

HAMAMELIDACEAE

Hamamelis virginiana L., SJ 16307; LB 28176

Liquidambar styraciflua L., SJ 16073, 16441; MM 6120

HIPPOCASTANACEAE

Aesculus pavia L., MM 5234

HYPERICACEAE

Hypericum drummondii (Grev. & Hook.) Torr. & A. Gray, LB 28922, 28765; MM 6613; GW 2793

Hypericum galioides Lam., LB 28422; MM 6587

Hypericum gentianoides (L.) Britton, Sterns, Poggenb., MM 6892, 6621; LB 28988, 28764

Hypericum hypericoides (L.) Crantz, MM 6098

Hypericum mutilum L., LB 28417, 28160; MM 6625

Triadenum walteri (J.G. Gmel.) Gleason, MM 6931, 6953; LB 29016; GW 2821

IRIDACEAE

Alophia drummondii (Graham) R. C. Foster, MM 6516; LB 28392, 28234; SJ 16416

Herbertia lahue (Molina) Goldblatt, MM 6253; SJ 16190

Iris brevicaulis Raf., SJ 16251

Sisyrinchium angustifolium Mill., GW 2530

Sisyrinchium rosulatum E. P. Bicknell, MM 6263; GW 2495

Sisyrinchium sagittiferum E. P. Bicknell, MM 6140; WRC 17353

JUGLANDACEAE

Carya cordiformis (Wangenh.) K. Koch, SJ 16282

Carya glabra (Mill.) Sweet, LB 28623, 28679, 28373; MM 6737

Carya texana Buckley, LB 28391; MM 6271

Carya tomentosa (Lam. ex Poir.) Nutt., SJ 16287; LB 27772; GW 2447, 2448

Juglans nigra L., SJ 16393; LB 28609; MM 6349

JUNCACEAE

Juncus acuminatus Michx., LB 30561 (SBSC)

Juncus capitatus Weigel, SJ 16042

Juncus coriaceus Mack., MM 6935, 6528; LB 28632, 28967

Juncus dichotomus Elliott, SJ 16385; MM 6604

Juncus diffusissimus Buckley, SJ 16296

Juncus effusus L., SJ 16138; MM 6254; LB 28207, 27852

Juncus marginatus Rostk., SJ 16346

Juncus repens Michx., MM 6944; LB 27851

Juncus scirpoides Lam., LB 28421; MM 6607

Juncus tenuis Willd., LB 28161; SJ 16405

Juncus trigonocarpus Steud., LB 28161; DR 2366

Juncus validus Coville, SJ 16352, 16406; LB 28328

LAMIACEAE

Hedeoma hispida Pursh, MM 6624

Hyptis alata (Raf.) Shinnars, MM 6899

Lycopus rubellus Moench, MM 6941

Lycopus virginicus L., GW 2779, 2044, 2966

Monarda fistulosa L. GW 2020

Monarda punctata L., MM 6717, 6705; LB 28618; GW 2726

**Perilla frutescens* (L.) Britton, LB 28643

Prunella vulgaris L., MM 6305

Pycnanthemum albescens Torr. & A. Gray, LB 28736, 28755; MM 6308, 6707

Pycnanthemum tenuifolium Schrad., SJ 16432; MM 6703

Salvia azurea Michx. var. *grandiflora* Benth., MM 6926; LB 29023

Salvia lyrata L., MM 6117; LB 28645, 27809

Scutellaria cardiophylla Engelm. & A. Gray, LB 28375; MM 6564

Scutellaria elliptica Muhl. ex Sprengel, SJ 16276; LB 28365, 30539 (SBSC), 30453

Scutellaria integrifolia L., LB 28343

Scutellaria parvula Michx., GW 2484; WRC 17333

Stachys tenuifolia Willd., GW 2724

Trichostema dichotomum L., LB 8952; GW 2775

Trichostema setaceum Houtt., MM 6924a; LB 29022

LAURACEAE

Persea borbonia (L.) Spreng., MM 6273, 6087; LB 28126, 28390

Persea palustris (Raf.) Sarg., LB 27847, 28325; SJ 16397

Sassafras albidum (Nutt.) Nees, LB 28639; MM 6272; SJ 16090

LENTIBULARIACEAE

Pinguicula pumila Michx., GW 2510

Utricularia cornuta Michx., LB 30459a (SBSC)

Utricularia gibba L., LB 28717

Utricularia inflata Walter, PR s.n.

Utricularia juncea Vahl, MM 6585

Utricularia subulata L., GW 2487

LILIACEAE

Allium canadense L. var. *canadense*, MM 6282; GW 2537

Allium canadense L. var. *mobile* (Regel) Ownbey, SJ 16197

Hypoxis curtissii Rose, MM 6343; GW 2522; LB 28175a; SJ 16235

Nothoscordum bivalve (L.) Britton, MM 6095

LINACEAE

Linum medium (Planch.) Britton var. *texanum* (Planch.) Fernald, MM 6533; LB 28424, 28218; GW 2574

Linum striatum Walter, GW 2598, 2719; MM 6519

LOGANIACEAE

Gelsemium sempervirens (L.) Aiton f., MM 6113 SEWP 2005

Mitreola petiolata (J.F. Gmel.) Torr. & A. Gray, LB 29017, 28739; GW 2780

Mitreola sessilifolia (J.F. Gmel.) G. Don, LB 28431; MM 6626; GW 2695

LYCOPODIACEAE

Lycopodiella appressa (Chapm.) Cranfill, MM 6890, 6579

Pseudolycopodiella caroliniana (L.) Holub var.
caroliniana, MM 6582; GW 2712

LYGODIACEAE

**Lygodium japonicum* (Thunb. ex Murray) Sw.,
MM 6317; SJ 16211; WRC 10845

LYTHRACEAE

**Cuphea carthagenensis* (Jacq.) J.F. Macbr., MM
6298, 6741; LB 28963

**Cuphea glutinosa* Cham. & Schlecht., MM 6266;
LB 28393; GW 2512

Rotala ramosior (L.) Koehne, GW 2782

MAGNOLIACEAE

Magnolia grandiflora L., LB 27818, 28196; MM
6149; SJ 16070

Magnolia virginiana L., MM 6248; LB 27813; SJ
16371

MALVACEAE

Malvaviscus arboreus Dill. ex Cav. var. *drummondii*
(Torr. ex A. Gray) Schery, LB 28345; MM 6719

Sida rhombifolia L., MM 6752; LB 28637

Sida spinosa L., GW 2725

MAYACACEAE

Mayaca fluviatilis Aubl., GW 2507, 2788

MELASTOMATACEAE

Rhexia mariana L., MM 6608; LB 28330; GW 2597,
2969

Rhexia virginica L., LB 28728; MM 6733

MELIACEAE

**Melia azedarach* L., LB 28964

MENISPERMACEAE

Cocculus carolinus (L.) DC., LB 28203

MOLLUGINACEAE

Mollugo verticillata L., MM 6606; SJ 16377

MONOTROPACEAE

Monotropa uniflora L., LB 28372

MORACEAE

Morus rubra L., MM 6123; LB 28776; SJ 16438; GW
3335

MYRICACEAE

Morella caroliniensis (Mill.) Small, MM 6237, LB
28956, 28784, 28182

Morella cerifera (L.) Small, MM 6340; LB 28130,
28247; GW 2707

NYMPHAEACEAE

Nuphar lutea (L.) Sm. subsp. *advena* (Aiton)
Kartesz & Gandhi, LB 26168

OLEACEAE

Chionanthus virginicus L., MM 6118; LB 28137,
28354; SJ 16089

Forestiera ligustrina (Michx.) Poir., GW 1944, 2421,
2515; LB 27817

Fraxinus americana L., MM 6319; GW 2708; LB
28106; SJ 16365

Fraxinus caroliniana Mill., SJ 16203; LB 30565
(SBSC)

Fraxinus pennsylvanica Marshall., MM 6076

**Ligustrum sinense* Lour., LB 28945; SJ 16251

ONAGRACEAE

Ludwigia alternifolia L., LB 28331; GW 2799

Ludwigia decurrens Walter, GW 2798; LB 28724;
MM 6949

Ludwigia glandulosa Walter, GW 2720, 2967; LB
28744

Ludwigia hirtella Raf.; LB 28328; MM 6585, 6734

Ludwigia leptocarpa (Nutt.) Hara, GW 2968

Ludwigia linearis Walter, MM 6897

Ludwigia pilosa Walter, LB 30560 (SBSC)

Oenothera laciniata Hill, GW 2492

Oenothera linifolia Nutt., MM 6305

Oenothera speciosa Nutt., MM 6260; SJ 16344

OPHIOGLOSSACEAE

Botrychium biternatum (Sav.) Underwood, MM
6910; LB 27831

Botrychium virginianum (L.) Sw., MM 6331, 6147;
GW 1945

ORCHIDACEAE

Corallorhiza wisteriana Conrad, SEWP 2007

Listera australis Lindl., SEWP 2003

Platanthera clavellata (Michx.) Luer, LB 28268; GW
2563

Platanthera cristata (Michx.) Lindl., GW 2701

Spiranthes cernua (L.) L. C. Rich., MM 6952; GW
3449

Spiranthes lacera (Raf.) Raf. var. *gracilis* (Bigelow)
Luer, MM 6620

Spiranthes praecox (Walter) S. Watson, SJ 16259

Spiranthes tuberosa Raf., LB 28382; MM 6573

OROBANCHACEAE

Epifagus virginiana (L.) W. Bart., LB 28271

OSMUNDACEAE

- Osmunda cinnamomea* L., MM 6242; LB 28190
Osmunda regalis L. var. *spectabilis* (Willd.) A. Gray,
 MM 6259; LB 28123, 28206, 27855

OXALIDACEAE

- Oxalis corniculata* L. var. *wrightii* (A. Gray) B. L.
 Turner, MM 6096
 **Oxalis debilis* Kunth var. *corymbosa* (DC.)
 Lourteig, SJ 16231
Oxalis lyonii Pursh, (T) MM 6135; WRC 17337

PASSIFLORACEAE

- Passiflora lutea* L., MM 6293, 6742; LB 28939,
 28338

PHYTOLACCACEAE

- Phytolacca americana* L., LB 28140

PINACEAE

- Pinus echinata* Mill., MM 6893, 6082; LB 28949; SJ
 16288
Pinus palustris Mill., MM 6070; SJ 16311
Pinus taeda L., MM 6083; SJ 16257

PLANTAGINACEAE

- Plantago aristata* Michx., SJ 16295; LB 28236; MM
 6623

PLATANACEAE

- Platanus occidentalis* L., MM 6246; SJ 16434; LB
 27816; GW 2046

POACEAE

- Agrostis eliottiana* J.A. Schultes, GW 2501
Agrostis hyemalis (Walter) Britton, Sterns,
 Poggenb., MM 6321
 **Aira elegans* Willd. ex Kunth, MM 6235; LB 28212
Andropogon gerardii Vitman, LB 29033, 28999
Andropogon glomeratus (Walter) Britton, Sterns,
 Poggenb. LB 28965; GW 2784
Andropogon gyrans Ashe var. *gyrans*, WRC 17339
Andropogon ternarius Michx., MM 6874, 6916; GW
 2807; LB 28982
Andropogon virginicus L. var. *virginicus*, LB 29027,
 28997, 28941, 28936
Aristida lanosa Muhl. ex Willd., MM 6927; LB
 29002; WRC 10829; DR 2367
Aristida longispica Poir. var. *geniculata* (Raf.)
 Fernald, MM 6904
Aristida longispica Poir. var. *longispica*, LB 28926;
 GW 2789, 2816
Aristida oligantha Michx. GW 2791

- Aristida purpurascens* Poir. var. *purpurascens*, MM
 6871; LB 29004, 28991, 28931
Arundinaria gigantea (Walter) Muhl., MM 6072;
 LB 28650, SJ 16120; SEWP 2001
Axonopus fissifolius (Raddi) Kuhl., LB 28359,
 28611; GW 2705
 **Briza minor* L., MM 6079; GW 2611
 **Bromus japonicus* Thunb. ex Murr., SJ 16359
Cenchrus spinifex Cav., LB 28363; MM 6615; GW
 2704
Chasmanthium latifolium (Michx.) Yates, SJ
 16403; LB 28350, 28151; MM 6743
Chasmanthium laxum (L.) Yates var. *laxum*, LB
 28730
Chasmanthium laxum (L.) Yates var. *sessiliflorum*
 (Poir.) Wipff & S. Jones, MM 6722; LB 28714,
 28348
Dichanthelium aciculare (Desv. ex Poir.) Gould &
 Clark SJ 16060, 16107; LB 28238
Dichanthelium aciculare (Desv. ex Poir.) Gould &
 Clark subsp. *angustifolium* (Elliott) Freckman
 & Lelong, LB 28367
Dichanthelium acuminatum (Sw.) Gould & Clark
 var. *acuminatum*, SJ 16427; LB 28335
Dichanthelium boscii (Poir.) Gould & Clark, LB
 28273, 28663, 28351, 28149
Dichanthelium commutatum (Schultes) Gould
 subsp. *commutatum*, MM 6239; SJ 16064,
 16313; LB 28716, 30460b (SBSC)
Dichanthelium commutatum (Schultes) Gould
 subsp. *equilateral* (Scribn.) Freckman &
 Lelong, LB 28589
Dichanthelium dichotomum (L.) Gould var.
dichotomum, MM 6299; LB 28975, 28628; SJ
 16171
Dichanthelium dichotomum (L.) Gould subsp.
microcarpon (Elliott) Freckman & Lelong, LB
 28166, 28164
Dichanthelium ensifolium (Baldw. ex Elliott)
 Gould subsp. *ensifolium*, LB 29038; SJ 16308
Dichanthelium laxiflorum (Lam.) Gould, LB 27788;
 WRC 17342
Dichanthelium oligosanthos (Schult.) Gould, var.
oligosanthos, SJ 16184
Dichanthelium oligosanthos (Schult.) Gould var.
scribnerianum (Nash) Gould, LB 28369
Dichanthelium oligosanthos (Schult.) Gould, WRC
 17340
Dichanthelium ovale (Elliott) Gould & C.A. Clark

- subsp. *villosissimum* (Nash) Freckman & Lelong, SJ 16263, 16195; MM 6277; WRC 17341
- Dichantherium polyanthes* (Schult.) Mohlenbr., LB 28384, 30567 (SBSC), 30573 (SBSC); SJ 16404
- Dichantherium ravenelii* (Scribner & Merr.) Gould & Clark, MM 6290; SJ 16435
- Dichantherium scoparium* (Lam.) Gould, SJ 16407; LB 28405; MM 6612
- Dichantherium sphaerocarpon* (Elliott) Gould, MM 6298, 6563; SJ 16265 LB 28630
- Dichantherium wrightianum* (Scribn.) Freckmann, LB 28433; MM 6583
- Digitaria ciliaris* (Retz.) Koel., LB 28933, 28712
- Digitaria cognata* (J.A. Schultes) Pilger var. *cognata*, GW 2815
- Digitaria filiformis* (L.) Koel. var. *filiformis* GW 2806
- Digitaria filiformis* (L.) Koel. var. *villosa* (Walter) Fernald, MM 6876; LB 29026; GW 2418
- **Digitaria violascens* Link, LB 29009
- Elymus virginicus* L., LB 28208, 28732; MM 6535; SJ 16444
- Eragrostis elliotii* S. Watson, GW 2812
- Eragrostis hypnoides* (Lam.) Britton, Sterns, Poggenb., GW 2719b
- Eragrostis intermedia* (Lam.) Britton, Sterns, Poggenb., LB 28944
- Eragrostis refracta* (Muhl.) Scribn., LB 28989
- Eragrostis secundiflora* (J. Presl) subsp. *oxylepis* (Torr.) S.D. Koch, MM 6696; LB 28774; GW 2797
- Eragrostis spectabilis* (Pursh) Steud., MM 6915, 6869, 6902; LB 28983
- Eustachys petraea* (Sw.) Desv., MM 6903
- Gymnopogon ambiguus* (Michx.) Britton, Sterns & Poggenb., MM 6865; GW 2808; DR 2368
- Leersia virginica* Willd., LB 28971, 28627
- **Lolium perenne* L., MM 6322; SJ 16350
- Melica mutica* Walter, MM 6108; LB 28173, 27832
- Oplismenus hirtellus* (L.) Beauv., LB 28648; MM 6938
- Panicum anceps* Michx., MM 5757, 5646; LB 29008, 28974
- Panicum brachyanthum* Steud., MM 6912; LB 68980, 68929; WRC 10832
- Panicum gymnocarpon* Elliott, LB 28973, 28740
- Panicum rigidulum* Bosc ex Nees, LB 28747
- Panicum verrucosum* Muhl., MM 6881, 6950; LB 29037, 29011
- **Paspalum notatum* Fluegge, MM 6875, 6537; LB 28603; GW 2585a
- Paspalum plicatulum* Michx., MM 6864, 6731; LB 28199; SJ 16356
- Paspalum praecox* Walter, MM 3933, 3719, 3937
- Paspalum setaceum* Michx., GW 2419; LB 2403, 28928; MM 6724
- **Paspalum urvillei* Steud., MM 6895, 6541; LB 28221, 29010
- Phalaris angusta* Nees ex Trin., SJ 16255
- Piptochaetium avenaceum* (L.) Parodi, MM 6329; SJ 16378
- **Poa annua* L., MM 6142; GW 2497, 2498
- Poa autumnalis* Muhl. ex Elliott, LB 27829
- Saccharum giganteum* (Walter) Pers., MM 6880
- Schizachyrium scoparium* (Michx.) Nash var. *divergens* (Hack.) Gould, LB 28998; GW 2814
- Setaria parviflora* (Poir.) Kerguelen, LB 28361
- Sorghastrum elliotii* (Mohr) Nash, MM 6919
- Sphenopholis filiformis* (Chapm.) Scribn., WRC 17336
- Sphenopholis intermedia* (Rydb.) Rydb., SJ 16229
- Sphenopholis obtusata* (Michx.) Scribn., MM 6300
- Sporobolus clandestinus* (Biehler) A.S. Hitchc., MM 6904; LB 29003, 28994; GW 2813
- Sporobolus indicus* (L.) R. Br., LB 28930
- Sporobolus junceus* (Beauv.) Kunth, LB 28993; MM 6920; DR 2369
- Steinchisma hians* (Elliott) Nash, SJ 16298
- Tridens flavus* (L.) Hitchc. var. *chapmanii* (Small) Shinnars, WRC 10826
- Tridens flavus* (L.) Hitchc. var. *flavus*, LB 28634; GW 2426, 2819, 2783
- Tridens strictus* (Nutt.) Nash, LB 28904

POLEMONIACEAE

- Phlox nivalis* Lodd. ex Sweet subsp. *texensis* Lundell, MM s.n.; WRC 17332

POLYGALACEAE

- Polygala mariana* Mill., LB 28215; SJ 16206
- Polygala polygama* Walter, MM 6296; LB 28116

POLYGONACEAE

- Brunnichia ovata* (Walter) Shinnars, MM 6951; LB 28138
- Polygonum punctatum* Elliott, MM 6930; LB 28656; GW 2883, 2778a
- Polygonum virginianum* L., LB 28656a

POLYPODIACEAE

- Pleopeltis polypodioides* Andrews & Windham subsp. *michauxiana* (Weatherby) Andrews & Windham, LB 28407, 27795

POTAMOGETONACEAE

Potamogeton diversifolius Raf., SJ 16273; LB 28682; GW 2506

Potamogeton pulcher Tuckerman, GW 2561

PRIMULACEAE

**Anagallis arvensis* L., MM 6089

Anagallis minima (L.) Krause, LB 27777

Samolus valerandi L. subsp. *parviflorus* (Raf.) Hultén, LB 29040; SJ 16241

RANUNCULACEAE

Clematis reticulata Walter, GW 2734; MM 6610

Ranunculus hispidus Michx. var. *nitidus* (Chapm.) T. Duncan, LB 27841; GW 2734

**Ranunculus parviflorus* L., GW 2517

Ranunculus pusillus Poir., GW 2480

+*Ranunculus recurvatus* Poir., GW 3351

RHAMNACEAE

Berchemia scandens (Hill) K. Koch, MM 6103; LB 27861; SJ 16159

Rhamnus caroliniana Walter, MM 6122; LB 28633, 27799, 30572 (SBSC)

ROSACEAE

Agrimonia microcarpa Wallr., GW 2769, 3425; MM 6721

Agrimonia rostellata Wallr., LB 28732; MM 6334

Crataegus marshallii Egglest., MM 6726; LB 28970, 27825a; SJ 16074

Crataegus opaca Hook. & Arn., SJ 16078

Crataegus spathulata Michx., SJ 16096; LB 28644, 27798; GW 2461

Crataegus uniflora Muench., GW 2014

Crataegus viridis L., GW 1947a

Prunus caroliniana (Mill.) Aiton, LB 28951

Prunus gracilis Engelman & A. Gray, MM 6284; LB 27785

Prunus serotina Ehrh., MM 6119; LB 28785, 28269; SJ 16067

Prunus umbellata Elliott, LB 27800; SJ 16172

Rubus argutus Link, SJ 16155; LB 28788; GW 2706, 2457

Rubus trivialis Michx., MM 6116

RUBIACEAE

Cephalanthus occidentalis L., MM 6932, 6593

Diodia teres Walter, MM 6694; LB 2840

Galium pilosum Aiton, GW 2573; MM 6326

Galium tinctorium (L.) Scop., LB 27806; GW 2483

Galium triflorum Michx., SJ 16283; LB 28789

Galium uniflorum Michx., SJ 16278; LB 30460a (SBSC)

Houstonia micrantha (Shinners) Terrell, WRC 17334

Houstonia pusilla Schoepf, MM 6112

Mitchella repens L., MM 6247, 6189; LB 27803; SJ 16162

Oldenlandia uniflora L., GW 2713, 2790

Pentodon pentandrus (K. Schum.) Vatke, LB 28608; DR 2374

**Richardia scabra* L., LB 28924

**Sherardia arvensis* L., MM 6136

Stenaria nigricans (Lam.) Terrell, LB 28368, 28222; MM 6539

RUTACEAE

**Poncirus trifoliata* (L.) Raf., SJ 16246; LB 28652

Zanthoxylum clava-herculis L., LB 28185

SALICACEAE

Salix nigra Marshall., SJ 16142

SAPOTACEAE

Sideroxylum lanuginosum Michx. subsp. *oblongifolium* (Nutt.) T.D. Pennington, SJ 16306

SARRACENIACEAE

Sarracenia alata Wood, MM 6589

SAURURACEAE

Saururus cernuus L., LB 28620, 28142a; MM 6943

SAXIFRAGACEAE

Lepuropetalon spathulatum Elliott, LB 27768

SCROPHULARIACEAE

Agalinis fasciculata (Elliott) Raf., LB 28948, 28923

+*Agalinis filifolia* (Nutt.) Raf., MM 6921, 6922, 6901

Agalinis purpurea (L.) Pennell, LB 29029; GW 2879

Aureolaria flava (L.) Farw. var. *macrantha* Pennell, MM 5639

Aureolaria grandiflora (Benth.) Pennell, MM 6751; LB 28591; GW 2736

Aureolaria pectinata (Nutt.) Pennell, GW 2880

Bacopa caroliniana (Walter) Robins. LB 30562 (SBSC)

Gratiola neglecta Torr., GW 2526

Gratiola pilosa Michx., GW 2696; LB 29036; MM 6581

Gratiola virginiana L., GW 2485, 2525, 2604

Lindernia dubia (L.) Pennell, SJ 16146; LB 28720; GW 2605

Mecardonia acuminata (Walter) Small, GW 2781; LB 29028, 28230

Mecardonia procumbens (Mill.) Small, GW 809
Micranthemum umbrosum (J. G. Gmel.) Blake, SJ
 16269; LB 28592
Penstemon laxiflorus Pennell, MM 6307, 6088; SJ
 16077; LB 28227
Scoparia dulcis L., MM 6692; LB 28357, 28225

SELAGINELLACEAE

Selaginella apoda (L.) Spring, MM 6255; GW 2508;
 SJ 16419

SMILACACEAE

Smilax bona-nox L., MM 6691
Smilax glauca Walter, LB 28977, 28119
Smilax laurifolia L., MM 6250, 6736; LB 28193; SJ
 16272
Smilax pumila Walter, MM 6086; SJ 16161
Smilax rotundifolia L., MM 6238; SJ 16436; LB
 27779
Smilax smallii Morong, MM 6240; LB 28938,
 28233; SJ 16158
Smilax tamnoides L., SJ 16202

SOLANACEAE

Physalis heterophylla Nees, MM 6286; GW 2801
Physalis pubescens L., GW 2599
Physalis pumila Nutt., MM 5369, 5404; GW 2660
Solanum carolinense L., MM 6723; LB 28337
 **Solanum capsicastrum* Link ex Schauer, GW
 2047
Solanum ptycanthum Dunal, MM 6937; SJ 16248

SPARGANIACEAE

Sparganium americanum Nutt., SJ 16293; LB
 30564 (SBSC)

STYRACACEAE

Halesia diptera Ellis, SJ 16412; LB 27825
Styrax grandifolius Aiton, LB 28128, 28124, 28127

SYMPLOCACEAE

Symplocos tinctoria (L.) L. Her, SJ 16318; LB 28783,
 28277

THELYPTERIDACEAE

Thelypteris kunthii (Desv.) Morton, MM 6339; SJ
 16227; LB 26244, 26244

TILIACEAE

Tilia americana L. var. *caroliniana* (Mill.) Castigl.,
 LB 27828; GW 2012, 2048

ULMACEAE

Celtis laevigata Willd., GW 2513b, 2514c
Celtis tenuifolia Nutt., MM 6522; LB 30534 (SBSC),
 30560 (SBSC)

Planera aquatica J.F. Gmel., LB 28180; SJ
 16204, 6414; GW 2042

Ulmus alata Michx., MM 6706, 6092; GW 2415; SJ
 16439

Ulmus americana L., SJ 16132, SJ 16140; LB 28211;
 GW 2425

URTICACEAE

Boehmeria cylindrica (L.) Sw., LB 28344, 28136;
 MM 6744

VALERIANACEAE

Valerianella radiata (L.) Dufr., MM 6333

VERBENACEAE

Callicarpa americana L., SJ 16442; LB 28347; MM
 6557, 6097

Glandularia canadensis (L.) Nutt., MM 6115; LB
 28408

Phyla nodiflora (L.) Greene, SJ 16431

**Verbena brasiliensis* Vell., SJ 6908

Verbena halei Small, MM 6308; LB 28236a; GW
 2689

**Verbena rigida* Spreng., MM 6542

**Vitex agnus-castus* L., MM 6542

VIOLACEAE

Viola lanceolata L., LB 27859

Viola palmata L., MM 6129; LB 27812; GW 2519,
 2542

Viola pedata L., MM 6138; SJ 16092

Viola primulifolia L., SJ 16134; LB 29014; MM 6252;
 SEWP 2004

Viola sororia Willd. var. *missouriensis* (Greene)
 McKinney, LB 28135, 27819; GW 1941, 2443

Viola villosa Walter, MM 6109; LB 27787; GW 2481,
 2531

VITACEAE

Ampelopsis arborea (L.) Koehne, MM 6728, 6728;
 LB 228204

Parthenocissus quinquefolia (L.) Planch., MM
 6126; SJ 16094

Vitis aestivalis Michx., GW 2580; MM 6558, 6287;
 SJ 16274

Vitis cinerea (Engelm) Millard. var. *cinerea*, LB
 28976, 28605, 28132

Vitis rotundifolia Michx., MM 6124; LB 28120; SJ
 16223

XYRIDACEAE

Xyris ambigua Bey. ex Kunth, LB 28715

Xyris baldwiniana Schult., MM 6580; GW 2711; LB
 30459

Xyris difformis Chapm. var. *curtissii* (Malme) Kral, *Xyris difformis* Chapm. var. *difformis*, GW 2710
 LB 28425; MM 6732 *Xyris jupicai* L. C. Rich., MM 6888, 6700

Notes

Agalinis filifolia.—We are following Wunderlin (1998) in merging *A. pulchella* with *A. filifolia*.

Cerastium pumilum.—Turner et al (2003) mapped this exotic species in six northeastern Texas counties with Kaufman County the most southern. Our Polk County record and another one from San Jacinto County (both at SBSC) are the most southern Texas collections known to us.

Croptilon hookerianum.—The Polk County collection is the first for the pineywoods region of east Texas. The most eastern collection in Turner et al. (2003) is from Fayette County. It is distinguished from *C. divaricatum* and *C. rigidifolium* (the only other *Croptilon* taxa in Texas) by the lack of non-glandular trichomes on the distal portions of the stems.

Diaperia candida.—In the *Flora of North America Asteraceae* volumes (ined.), our *Evax* taxa are treated in the genus *Diaperia*.

Loeflingia squarrosa.—This western taxa appears to be new to Polk County (Turner et al. 2003). This, *Prunus gracilis*, and *Croptilon hookerianum* are the only strictly western species found on the Big Sandy Creek Unit. These are characteristic species of xeric sandylands.

Minuartia muscorum.—For the curious nomenclatural history of this taxon see Rabeler (1992).

Phlox nivalis subsp. **texensis.**—This endemic to southeast Texas and a federally and state listed endangered species (Poole & Riskind 1987; Texas Parks and Wildlife 2004), was located on the Big Sandy Creek Unit during the study. The species has been planted in several locations in the unit by the U.S. Park Service, but the population located during this study was a naturally occurring one which had been known for some years.

Ranunculus recurvatus.—Our Polk County collection is one of only four counties mapped in Turner et al. (2003).

Silene subciliata.—In addition to *Phlox nivalis* ssp. *texensis*, *Silene subciliata* is the only other Texas rare species found on the Big Sandy Creek Unit. This West Gulf Coastal Plain endemic is rare in both Texas and Louisiana, but is not federally listed. In addition to these two rare West Gulf Coastal Plain endemics, the Big Sandy Creek Unit has several other West Gulf Coastal Plain endemics (MacRoberts et al. 2002a). These are *Baptisia bracteata* var. *leucophaea*, *Baptisia nuttalliana*, *Berlandiera pumila* var. *scabrella*, *Dalea phleoides* var. *phleoides*, *Echinacea pallida* var. *sanguinea*, *Hymenopappus artemisiifolius* var. *artemisiifolius*, *Lobelia puberula*, *Mimosa hystericina*, *Oligoneuron nitidum*, *Panicum brachyanthum*, *Scutellaria cardiophylla*, *Sisyrinchium sagittiferum*, *Solidago ludoviciana*, *Tradescantia reverchonii*, and *Vernonia texana*.

***Sophora affinis*.**—Our Polk County collection is one of only three specimens known to us from the pineywoods region in east Texas. The other two collections are from the Trinity River bottomlands in Liberty County.

DISCUSSION

There are 126 families and 358 genera for the 693 taxa (648 native) on the Big Sandy Creek Unit list. Also, 50.9 % of all taxa belong to eight families; they are Poaceae (88 taxa), Asteraceae (85 taxa), Cyperaceae (69 taxa), Fabaceae (46 taxa), Lamiaceae (19 taxa), Euphorbiaceae (16 taxa), Scrophulariaceae (16 taxa), and Fagaceae (15 taxa). The largest genera are *Carex* (35 taxa), *Dichanthelium* (19 taxa), *Quercus* (13 taxa) *Cyperus* (11 taxa), and *Rhynchospora* (11 taxa).

We compared our list of taxa for Big Sandy Creek Unit with the Polk County taxa reported by Turner et al. (2003) in their *Atlas of the vascular plants of Texas* and found that only 70 percent of our taxa are mapped for Polk County in that source. This is not surprising considering that until recently little focused collecting has been undertaken in the Big Thicket region and indicates that basic floristic collecting and documentation in the Big Thicket region are still needed.

Thus, while it is the case that our list is incomplete and that a few taxa may no longer exist on the unit, most taxa that have grown in the Big Sandy Creek Unit during the past quarter century have been collected (probably 85+ percent). We estimate that the Big Sandy Creek Unit has about 660 to 750 native species/taxa.

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